Amendments to the Specification

Please replace the paragraph beginning at page 10, line 4, with the following rewritten paragraph.

Still further examples include epidermal growth factor (EGF), nerve growth factor, insulin-like growth factor (IGF), basic fibroblast growth factor (βFGF), platelet derived growth factor (PDGF), transforming growth factor-β and related growth factors, for example ~~bond~~ bone morphogenetic proteins (BMPs), cytokines including interferons, interleukins, monocyte chemotactic protein-1 (MCP-1). It will be appreciated that these growth factors may also usefully be implanted/incorporated in the biocompatible, biodegradable material and released as the material degrades.

E1

Please replace the paragraph beginning at page 12, line 17, with the following rewritten paragraph.

To demonstrate a specific preferred embodiment of the present invention, a biodegradable polymer that employs a biological-recognition event to allow facile surface engineering with any type of ligand on any material architecture has been engineered and utilized. The biodegradable polymer is composed of a block copolymer of biotinylated poly(ethylene glycol) (PEG) with poly(lactic acid) (PLA), called PLA-PEG-biotin. The bulk properties of this polymer are governed by the PLA block. The inherent biocompatibility of PLA leads to important considerations in device safety (Shalaby, S.W., "Biomedical Polymers: Designed-to-Degrade Systems", 1994, Hanser/Gardner, Cincinnati, OH; Atala, et al., "Synthetic Biodegradable Polymer Scaffolds: Tissue Engineering" Birkhauser, Boston, 1997), and PLA degradation allows for formation of resorbable materials. Surface properties are determined by the PEG block, which reduces nonspecific protein interactions (Andrade, et al., *Adv. Chem. Ser.*, **1996**, *248*, 51), whilst the biotin moiety provides a universal linkage for surface engineering (Wong,et al., *Science*, **1997**, *275*, 820). As discussed previously, surface engineering is achieved using avidin as a bridge between the biotinylated polymer surface and biotinylated short ligand molecules. Since the tetrameric structure of avidin contains four biotin binding sites, avidin molecules immobilized on ~~t he~~ the material surface retain the ability to bind biotin. Therefore, as

E2

also discussed previously more generally, biotinylated molecules can be immobilized on the material surface at the site of the avidin immobilization.

Please replace the paragraph beginning at page 17, line 1, with the following rewritten paragraph.

Example 2: SPR Analysis: The SPR instrument (Johnson & Johnson Clinical Diagnostics, Buckinghamshire, US) had a Kretschmann configuration (Kretschmann, 1971) and utilized a monochromatic laser light source with a wavelength of 780 nm. SPR sensor slides were produced by vapor deposition of a thin film of silver (approximately 50 nm thick) onto glass slides. Thin films of the polymer under analysis were formed on the SPR sensor surface by spin casting 100 uL aliquots of a 1-μg/mL polymer solution in chloroform at 2000 rpm. During the experiment, the instrument measured the angle of minimum reflectivity, termed the SPR angle (θ SPR), as detected by the photodiode array. This minimum was plotted against time. For experiments examining the binding of avidin to the polymer in the absence of PVA, phosphate buffer (100 mM, pH 7.4) was flowed over the polymer surfaces for 240 s at a flow rate of 0.249 mL/s to obtain a stable baseline value for θ SPR. Then 1 mL of the avidin solution (0.5 μg in 10 mM phosphate buffer, pH 7.4) was injected into the sample flow cell at 0.249 mL/s, using an electronically controlled Rheodyne Type 6 port valve. After 250 s of avidin injection, buffer was washed through the flow cell for 375 s at 0.240 mL/s. For experiments investigating the amount of avidin binding after exposure ~~fo~~ of the polymer surface to PVA, 1 mL of an aqueous PVA solution (88 mol % hydrolyzed, 10 mg/mL) was injected into the flow cell over a period of 350 s, followed by a 375-s buffer wash. Then the surface was exposed to avidin using an identical procedure to that described above. For all SPR results presented, θ SPR is quoted after 300 s of avidin solution injection. In all cases the value of SPR remained constant after 300 s during the replacement of avidin solution with buffer.